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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/28/2006

Jun Tominaga

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09/14/2010

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EXAMINER

SELLS, JAMES D

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,746	Applicant(s) TOMINAGA ET AL.	
	Examiner James Sells	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-18, 20 and 23-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18, 20 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/20/2010 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16-18, 20 and 23-28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Takayoshi (JP7-117134A)

Regarding claim 20, Takayoshi discloses an ultrasonic welding apparatus. As shown in Fig. 3b, the apparatus comprises ultrasonic horn 1 shown with a concave, a peripheral surface located outside the concave portion and a protruding central portion having a substantially conical shape extending beyond a level of the peripheral surface toward the heating target.

Applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of a columnar heating target formed with a resin material has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 16, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concepts of the resin material, the bonding target includes an insertion hole for inserting the heating target, and the insertion hole includes a notch formed in an inner edge of the insertion hole on a side facing the resonator has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 17, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in

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determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of the notch serves as an acceptance unit that accepts the heating target in a molten state has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 18, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of the notch serves as a stress relaxing unit that relaxes a stress generated within the heating target due to a contact with the inner edge of the insertion hole has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 23, Applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a

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structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of the heating target includes a resonator acceptance unit which is formed in a substantially conical shape with a diameter large enough to include the protruding portion formed in the substantially semispherical shape has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 24, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of the heating target includes a resonator acceptance unit which is an elongated hole formed along a direction of pressing the resonator has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 25, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75

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F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of the the heating target includes a resonator acceptance unit which is a penetrating hole formed along a direction of pressing the resonator to reach a bottom of the heating target has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 26, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of a notch is provided in an upper edge of the resonator acceptance unit has been fully considered, but is not given patentable weight in so far as it does not affect the structure of the claimed apparatus

Regarding claim 27, Applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concepts of the heating target includes a

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large-diameter portion located on a side of a base of the heating target; and a small-diameter portion located on a side of the resonator relative to the large-diameter portion, with a smaller diameter than a diameter of the large-diameter portion have been fully considered, but are not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 28, applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concepts of the bonding target includes an insertion hole for inserting the heating target, and a boundary between the large-diameter portion and the small-diameter portion of the heating target is arranged downward of an upper surface of the bonding target in a state in which the heating target is inserted into the insertion hole have been fully considered, but are not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Regarding claim 29, Applicant is reminded that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App 1969). Furthermore, “Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75

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F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Therefore the concept of the heating target includes a resonator acceptance unit in a shape of a penetrating hole formed along a direction of pressing the resonator to reach a bottom of the heating target have been fully considered, but are not given patentable weight in so far as it does not affect the structure of the claimed apparatus.

Response to Arguments

4. Applicant's arguments with respect to claims 16-18, 20 and 23-28 have been considered but are moot in view of the new ground(s) of rejection.

Telephone/Fax

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sells whose telephone number is (571) 272-1237. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phil Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Sells/
Primary Examiner, Art Unit 1791